

**REMARKS**

Reconsideration of this application, as amended, is respectfully requested.

In the Office Action, the Examiner rejected Claims 1, 2, 7 and 8 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,414,638 (Egashira) in view of U.S. Patent No. 5,734,351 (Ojantakanen et al.). Claim 7 was also objected to as having its limitation already defined in Claim 1. The Examiner's indication (Office Action, ¶5) that Claims 3-6 would be allowable if rewritten in independent form is gratefully acknowledged.

Claim 7 has been canceled, without prejudice. Claims 1-6 and 8 are now pending in this application.

The invention of the pending claims provides an antenna unit with a whip antenna having an insulator shorter than a helical antenna. The shorter insulator allows a longer rod antenna to be provided, thereby decreasing Specific Absorption Rate (SAR) and improving performance when extended. To avoid degrading performance of the helical antenna when the rod antenna is retracted, the antenna unit includes a conductive tube positioned within the helical antenna, with the conductive tube grounded to the main body. It is respectfully submitted that none of the cited references, either alone or in combination, disclose or suggest the antenna unit of the pending claims.

Claim 1 is the only pending independent claim. Claim 1 was rejected as allegedly being unpatentable over the combination of Egashira and Ojantakanen et al. The Examiner admitted that Egashira fails to disclose "the insulator having a length shorter than a length of the helical

antenna” (Office Action, top of page 3). The Examiner cited Ojantakanen et al. as allegedly curing this admitted defect of Egashira.

In contrast to the invention of the pending claims, Ojantakanen et al. merely discloses a device for serially connecting a “radiating helix element 1a-1c” (Col. 4, line 58) and a “[r]od part 2 [which] comprises radiating rod element 2a made of conducting material, and a dielectric protective material 2b” (Col. 4, lines 34-35).

In the Office Action, it is believed that the Examiner incorrectly asserted that FIGS. 5a and 5b of Ojantakanen et al. disclose “an antenna device having a whip antenna 2 having at one end an insulator having a length shorter than a length of a helical antenna” (Office Action, top of page 3). The assertion made by the Examiner ignores the specific teaching by Ojantakanen et al. that its dielectric protective material (2b) must be of sufficient length so that when its rod part (2) is retracted “there is only dielectric material inside the radiating helix element 1a-1c” (Col. 4, lines 57-58). Accordingly, Ojantakanen et al. unambiguously teaches that its dielectric protective material (2b, i.e. insulator) must be longer than the radiating helix element. Otherwise, conductive material would be present within the radiating helix element when the rod part (2) is retracted.

The Examiner apparently incorrectly assumed that item 1d (alternatively referred to as “supportive spiral” or “supportive thread” at Col. 4, lines 20 and 65) of FIGS. 5a and 5b of “helical part 1” (Col. 4, line 21) is part of the radiating helix element. In contrast, Ojantakanen et al. instructs that “the actual radiating helix element . . . consists of three parts 1a, 1b, and 1c”

(Col. 4, lines 23-25, also see Col. 5, lines 34-35, the “electrical length of the mere radiating helix element” consists only of parts 1a, 1b and 1c). Nowhere does Ojantakanen et al. teach or suggest that the supportive spiral/thread (1d) is part of its radiating helix element.

Accordingly, Ojantakanen et al. fails to teach or suggest a whip antenna with *an insulator having a length shorter than a length of the helical antenna*, as in Claim 1. None of the other cited references cure this defect. For at least this reason, Claim 1 believed to be in condition for allowance. Without conceding the patentability *per se* of the dependent claims, Claims 2-6 and 8 are believed to be in condition for at least the above reason.

Accordingly, it is respectfully submitted that all of the pending claims, i.e. Claims 1-6 and 8, are in condition for allowance. If the Examiner has any questions regarding this communication, the Examiner is requested to contact the undersigned.

Respectfully submitted,



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